

**Listing of Claims:**

1. (Currently Amended) A method for **selecting** ~~executing~~ inverse discrete cosine transform (iDCT) algorithms, ~~said method~~ comprising ~~the steps of~~:
  - a) examining the coefficients of a DCT block to determine ~~the position of the an~~ End of Block (EOB) **length** ~~coefficient~~;
  - b) selecting an iDCT algorithm **from a plurality of iDCT algorithms** according to the **EOB length** [position of said EOB coefficient and using an EOB histogram for B-frames]; and
  - c) executing ~~said~~ **the selected** iDCT algorithm.
2. (Currently Amended) The method of claim 1, **further comprising**:  
**generating a histogram of EOB lengths for a number of B frames corresponding to a shot,**  
[wherein said iDCT algorithm is an iDCT\_high algorithm available to said method and selected using an EOB histogram of the first B-frame of a shot].
3. (Currently Amended) The method of **claim 2** ~~claim 1~~, wherein said iDCT algorithm is an iDCT\_low algorithm available to said method and selected using an EOB histogram of the first B-frame of ~~a~~ **the** shot.
4. (Currently Amended) A system for reducing iDCT execution time, said system comprising:
  - a) determination means for determining ~~the position of~~ an End of Block (EOB) ~~coefficient~~ **length** in a DCT block;

b) selection means for selecting an iDCT algorithm from a plurality of iDCT algorithms based upon the ~~position of~~ said EOB length coefficient and using an EOB length histogram for a number of B-frames; and

c) execution means for executing said selected iDCT algorithm.

5. (Currently Amended) A system as recited in claim 4, [for reducing iDCT execution time, said system comprising:

a) **determination means for determining the position of an End of Block (EOB) coefficient in a DCT block;**

b) selection means for selecting an iDCT algorithm based upon the position of said EOB coefficient; and

c) execution means for executing said iDCT algorithm;]

wherein said iDCT algorithm is selected ~~determined~~ by creating an EOB length histogram of the first B-frame of a shot.

6. (Currently Amended) A computer program encoded on a computer readable medium containing instructions for selecting and executing inverse discrete cosine transform (iDCT) algorithms, said instructions performing the steps of:

a) examining the coefficients of a DCT block to determine an End of Block (EOB) length based upon the position of the End of Block (EOB) coefficient;

b) selecting an iDCT algorithm according to the EOB length ~~position of said EOB coefficient~~ and using an EOB length histogram for B-frames; and

c) executing said iDCT algorithm.

7. (Currently Amended) The method of claim 2 wherein said iDCT\_high algorithm is based upon an EOB ~~coefficient~~ **length** of 39 or 40.
8. (Currently Amended) The method of claim 3 wherein said iDCT\_low algorithm is based upon an EOB ~~coefficient~~ **length** of 14 or 25.
9. (Currently Amended) The medium of claim 6 wherein said iDCT\_high algorithm is based upon an EOB ~~coefficient~~ **length** of 39 or 40.
10. (Currently Amended) The medium of claim 6 wherein said iDCT\_low algorithm is based upon an EOB ~~coefficient~~ **length** of 14 or 25.
11. (Currently Amended) A system for reducing inverse discrete cosine transform (iDCT) execution time, said system comprising:
- a) a plurality of iDCT algorithms comprising an iDCT\_high algorithm and an iDCT\_low algorithm;
  - b) a switch for selecting a selected algorithm from said plurality of iDCT algorithms and using **a histogram of** an End of Block(**EOB**) **lengths histogram** for **a number of** B-frames; and
  - c) a computer processor for executing said selected algorithm.
12. (Currently Amended) The system of claim 11 wherein said switch accepts as input:
- a) a block of DCT coefficients;
  - b) an End of Block address; and
  - c) a picture type **bit** rate.

13. (Previously Presented) The system of claim 11 wherein said plurality of iDCT algorithms further comprises:

iDCT\_Normal, iDCT\_AC and iDCT\_DC.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Currently Amended) The method of **claim 2** ~~claim 17~~ wherein the shot includes a sequence of frames bounded on each side by a video transition.

19. (Previously Presented) The method of claim 18 wherein the video transition includes one of a cut frame, a dissolve, or a cross-dissolve.

20. (Currently Amended) The method of **claim 1** ~~claim 17~~ wherein the plurality of iDCT algorithms includes one of: iDCT\_Normal, iDCT\_AC, iDCT\_high, iDCT\_low and iDCT\_DC.

21. (New) The method of claim 2 wherein said iDCT algorithm is an iDCT\_high algorithm available to said method and selected using an EOB histogram of the first B-frame of the shot.